

## **REMARKS / ARGUMENTS**

Applicant thanks the Examiner for the Final Office Action of June 14, 2007. This Amendment is in full response thereto.

### **Objection to the Drawings**

In the Office Action, the Examiner objected to the drawings as failing to include the legend "Prior Art" for Figures 1A and 1B. Applicants have contemporaneously submitted Replacement Sheets including those legends. As such, the objection should be withdrawn.

### **Rejections under 35 U.S.C. § 103(a)**

In the Office Action, the Examiner rejected claims 9-11 and 14-16 under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,270,061 (Bouquet) in view of either U.S. Patent No. 6,799,683 (Jounela) or U.S. Patent No. 5,643,503 (Roland).

Applicants respectfully traverse the rejection of claims 9-11 and 14-16 over Bouquet in view of Jounela because, as combined in the manner suggested by the Examiner, they fail to disclose, teach, or suggest all of the limitations of the claims as amended, particularly, an upper disk that is substantially planar.

Jounela very clearly shows that as a result of the shapes of the guiding plate 33 and circular plate 27, gas is diverted from a vertical flow downward to a horizontal flow toward the directional element 28 where it is then directed at an angle between horizontal and vertically down. In order to achieve the result sought by the Examiner ("to influence the flow of the gas loaded liquid toward the bottom of the vessel") in utilizing the teachings of Jounela to modify the device of Bouquet, one of ordinary skill in the art would have to necessarily used the non-planar circular plate 27 of Jounela. In contrast, the claims require a substantially planar upper disk. As such, the rejection over Bouquet in view of Jounela should be withdrawn.

Applicants also respectfully traverse the rejection of claims 9-11 and 14-16 over Bouquet in view of Roland.

The Federal Circuit has held that even if all of the elements of a claimed invention are found in a combination of prior art references, analysis requires "consideration of two factors:

- (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and
- (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success." *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342 (Fed. Cir. 2007)

In this regard the Federal Circuit points out that in *KSR International Co. vs. Teleflex, Inc.*, 127 S. Ct. 1727 (2007) the Supreme Court "acknowledged the importance of identifying 'a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does' in an obviousness determination." *Takeda Chemical Industries, Ltd. v. Alphaphram Pty, Ltd.*, 492 F.3d 1350, 1356 (Fed. Cir. 2007).

With respect to the Examiner's hypothetical combination of the teachings of Bouquet and Roland, the Examiner has pointed to no explicit or implicit teaching in the prior art or other case law-based or common sense-based rationale tending to show that one of ordinary skill in the art should combine the references in the manner suggested by the Examiner, except for stating that

*"it would have been obvious ... to modify the impeller disks of Bouquet et al, to have a smaller lower disk ... since such would influence the flow of the gas loaded liquid toward the bottom of the vessel".*

In contrast to the directional arrows in Figure 4 of Jounela, Applicants respectfully assert that there is nothing in Roland tending to demonstrate that upper and lower disks having greater and smaller radii, respectively, will achieve the function sought

by the examiner: forcing the bubbles down instead of horizontally. Rather, the Examiner's utilization of Roland amounts to nothing more than a hindsight recreation of the claimed subject matter achieved by arbitrarily picking and choosing elements from the prior art. As such, the rejection of the claims over Bouquet in view of Roland should be withdrawn.

In the Office Action, the Examiner also rejected claims 9-10, 12, and 14-16 under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,270,061 (Bouquet) in view of U.S. Patent No. 6,712,980 (Ahlstrom). Applicants respectfully traverse because, as combined in the manner suggested by the Examiner, they fail to disclose, teach, or suggest all of the limitations of the claims as amended, particularly, an upper disk that is substantially planar and a lower disk having less surface area than the upper disk. Ahlstrom discloses a downwardly deflecting circular plate 20/deflection collar 20b in Figure 3 having a greater radius than sheath 6/collar 16. While the Examiner apparently considers sheath 6/collar 16 to be a lower plate and it may have a smaller radius, it actually has a greater surface area as required by the claims, despite the presence of cut-out area 10. Also, as see in Figure 3, the combination of the circular plate 20/deflection collar 20b is not substantially planar. As such, the rejection of claims 9-10, 12, and 14-16 over Bouquet in view of Ahlstrom should be withdrawn.

### **Allowable Subject Matter**

Applicants thank the Examiner's indication of allowable subject matter for claim 13. Applicants have amended claim 13 in independent form.

### **CONCLUSION**

Should the examiner believe a telephone call would expedite the prosecution of the application, the Examiner is invited to call the undersigned attorney at the number listed below. Applicants have contemporaneously submitted a Petition for a 3-Month Extension of Time along with the associated fee. Otherwise, it is not

Application No. 10/957,457  
Attorney Docket No. Serie 6504  
Amdt. dated December 14, 2007  
Reply to Office Action of June 14, 2007

believed that any fee is due at this time. If that belief is incorrect, please debit deposit account number 01-1375. Also, the Commissioner is authorized to credit any overpayment to deposit account number 01-1375.

Respectfully submitted,

/Christopher J. Cronin/

Christopher J. Cronin,  
Registration No. 46,513

Date: **December 14, 2007**

Air Liquide  
Intellectual Property  
2700 Post Oak Blvd., Suite 1800  
Houston, Texas 77056  
Phone: (302) 286-5525  
Fax: (302) 286-5590